

THE DETERMINANTS OF THE INVESTOR RELATIONS INFORMATION IN THE MALAYSIAN COMPANIES' WEBSITE

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Abstract

The main objective of this study is to extend the prior research in Investor relations information and communication through World Wide Web, by looking into the variation of investor information located at the Malaysian corporate website to the factors thought to influence the disclosure level. This study revealed that company size and industry classification was found significantly has positive association with the existence of investor information in the corporate website. On the other hand, for profitability and foreign ownership variables, result show insignificant relationship. The descriptive result may indicate that Malaysian companies may not take the opportunity to communicate with investors and stakeholders via internet, and choose the present traditional communication as what required by law. Another explanation is that, Malaysian companies may be complacent with the current traditional IR communications with institutional investors and funds managers in which this group are indeed familiar with how these Malaysian firms are operating.

Keywords: investor relations, internet reporting, disclosure, corporate governance.

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Introduction

The introduction and growth of the internet since 1994 have provided an interesting alternative for the dissemination and communication of accounting information by companies around the world. Investors, regulators and accounting profession all over the world have been observing and debating on the issue of corporate governance and transparency in companies' financial management. The 1997 Asian financial crisis has resulted loss in investor confidence but more importantly were lacking on effective corporate governance and transparency in the firm. The 2001 and 2002, accounting scandals have shaken some of the world's biggest corporations; as a result it has made the situation become more crucial.

Thus the events have created additional demands of information by investor. The information should be timely and relevant, with the aim to protect their investment. Today's investors and other stakeholders are more demanding and requesting better information on corporate performance. In order to rebuilt investor and public confidence, companies must strive to improve their corporate transparency. The most important thing is that the information can provide clear picture of corporate health. Moreover, to accommodate those demands, the companies need to revise their corporate disclosure policies and their relationship with investor. The relationship is known as investor relations (herein after known as IR) where

the companies will know what information that current and prospective investor wants rather than assuming that they are know. (Hamid, 2005).

Marston (1996) defined IR as the relationship between a company and the financial community, where the company will provide information to help the financial community and public investor in evaluating company. Ryder and Regester (1989) proposed that IR has strategic importance in creating a linkage between companies and investors. They have suggested that IR activities must focus on three basic principles. Firstly, to achieve and maintain the highest-possible share price. Secondly, to create investor and creditor confidence, where in return future cost of financing might be decreased. Lastly, to protect the needs of major shareholders and also to attract institutional and foreign shareholding investment in the companies.

Lev (1992) recommended that ongoing information to shareholders on the companys' activities can minimize uncertainty among investors, thus minimizing negative impacts on the share prices. Therefore, IR can be seen as a key influence in restoring investors' confidence (Gruner, 2002), especially during the uncertainty of the economic environment. Such uncertainty can be understood in terms of internal and external factors (Hamid, 2005). Internal factors refer to perceptions on company's performance that below public expectations (negative news or rumor). External factors refer to unpredictable economic conditions that beyond

firm's control. Those internal and external factors require companies to inform investors and the general public on companies' strategies to overcome such adverse situations. As such, IR can be understood as the dissemination of accurate information with a view to stabilizing share prices and enhancing investors' confidence. Thompson (2002) noted that IR has an important role in minimizing investors' risk by providing clear and understandable information with the aim of full and fair disclosure. Consequently, IR is important in increasing shareholder's value.

IR communication can be formal or informal. Formal communication includes annual reports, interim reports, and shareholder meetings (annual and extraordinary) (Brennan and Kelly, 2000). Marston (1996) and Brennan and Kelly (2000) has classified informal IR activities into private and public disclosure activities. Private activities include among others are mailing information to analysts and fund managers, answering queries, providing feedback on analysts' reports, and private company meetings. Public disclosure activity mainly relates to printing and issuing information by way of press release.

The emergence of Internet technology has forced companies to provide new methods for IR communication. The internet allows companies to provide global IR communication without time limit and it has become increasingly important as a means for communication. An IR website can also reduce costs of printing and staffing. Shareholders can choose to receive financial data online, rather than through postal mail. IR managers can respond to request from analysts and fund managers with up-to-date information. Taken together, these factors IR communication via internet provides benefits in cost-cutting, distribution, frequency, and speed. Finally, with this information technology the company can extend the reach of its critical corporate communication. As such it will help company to do a better job in explaining its financial results and news and also will strengthen its position as a technology innovator in the eyes of investors.

To give a snapshot of the IR reporting in Malaysia, Hamid (2005) surveyed on the 100 index linked companies in the Malaysian stock exchange, found that only 70 firms provided investor-related materials on their websites. Furthermore the study stated that 23 companies had a specific section on IR information. He remarked that a gap exists between developed countries and developing countries with respect to utilization of the internet for investor-relations purposes.

We extend the work by Hamid (2005) in three ways. First we used explanatory variables drawn from Marston (2003) plus an additional variable for foreign ownership and more detail classifications in industries grouping variable. Second, we used a different disclosure list that has been identified during the interview with investor relation

managers, rather than direct replication from prior study. And, third we attempted to explain related theoretical postulate that may motivate company to have the IR website. As cited by Marston and Starker (2001) there was little academic research in IR and this study also has tried to fill the gap in literature relating IR practices across countries.

The reminder of this paper is structured as follows. The next sections, provides an overview of corporate governance practice in Malaysia that discuss on the importance of IR. The third section discusses relevant prior literature on investor relations and internet reporting. In section four, we specify hypothesis about motivation factors for investor relation at the website, followed by research methodology in section five. The sections six will discuss on the result of hypothesis testing and finally, section seven provides the conclusion and limitation of the study.

The corporate governance practice in Malaysia

The IR communication and information were related to the concept of Corporate Governance. This section will discuss on the Corporate Governance code and its principle on IR in Malaysia. As pointed out in the introduction sections, one of the charges by critics against business corporations in Malaysia and Asian during the 1997 financial crisis was lacking and inadequate of corporate governance standards. In response to these charges, the Malaysian government has established the Finance Committee for developing the Corporate Governance code. This finance committee was headed by industry leaders and accountants among others. The committee has spent a year on studying and establishing the corporate governance codes similar to the Cadbury, King, and Hempel reports. Then in 1999, the group has published the first corporate governance code in Malaysia (Malaysia Code).

The Malaysia Code (1999, p.10) describes 'corporate governance' as the process and structure used to direct and manage the business and affairs of the company with a view to enhance business prosperity and corporate accountability. The ultimate objectives of the code are realizing the long-term shareholder value and protect the interest of other stakeholders. The Code suggest on the credibility, transparency and accountability in running the corporations. Furthermore its principle and practice must continue to evolve to adapt the Malaysian way and culture. The numerous recommendations of the Malaysian Code were implemented to enhance transparency and disclosure of relevant information among Malaysian listed companies.

However, the code is neither a law nor a legal basis. However started from June 2001, the Malaysian Stock Exchange has required all listed companies to adopt the recommendations proposed

by the Code to put it into practice. For example, all listed corporations' annual reports must included the Statement of Corporate Governance as the statement of the state of the firm internal control, plus the disclosures of directors remuneration and also to include details of directors whose seeking re-election at the companies annual general meetings.

In anticipation of the implementation of the Code, the Malaysian Institute of Corporate Governance (MICG) was formed by the government in March 1998. The objective for setting up this body was to represent, express and give effect to opinions of its members on issues relating to corporate governance in Malaysia, promote awareness of corporate governance principles among corporate participants, the investing public and corporations on the importance of good governance to enhance shareholders value and bring about corporate prosperity. The Malaysian Government effort on promoting Corporate Governance can be look on the setting up another body in year 2001 via the Employees Provident Fund (the largest pension fund in Malaysia was owned by the government) namely, the Minority Shareholders Watchdog Group(MSWG). The prime objective of MSWG was as a voice for minority shareholders and to provide an avenue for minority shareholders to institute proceedings against listed issuers who flout the principles and practices of good corporate governance.

IR is one of important part in the corporate governance. The Code (pp. 96–7) states the principal responsibility of company directors is to develop and implement an IR-programmed or shareholder communication policy. Starting from Jun 2001, this principle has been adopted for companies listed on the Malaysian stock Exchange. However, no detail authorised statement of IR information requirements has been issued. Despite the lack of detail requirements in code, the increase in awareness on the need for good governance has stimulated interest in IR. For example, and some of the firms have set up their specific IR departments and have their specific IR website or webpage to hear the voice of shareholders. At present in Malaysia, the requirement to have or establish an IR website is voluntary and unregulated. Therefore there is no mandatory guideline prescribing the content and presentation of information at the corporate Website. As such, the companies are under no obligation to have or maintaining the websites.

Literature review

The earliest research concerning internet reporting has been started in 1996, a year after the global interest in the internet as an advertising media has commenced. Most of the earlier study was focused on the existence of Websites for top stock exchange listed companies, on whether these companies has posted some type of financial information. As what

pointed by Xiao et al. (2002), a large number of prior studies on internet reporting were descriptive in nature and were focusing on the financial result. Among of these studies are (Petravick and Gillet, 1996 and 1998); Gray and Debreceny (1997); and Laymer and Tallberg (1997). Following this came a number of secondary studies developing the early exploratory either by examination of other geographic domains or extend range of attributes or factors thought to influence the disclosure in website, with the aim to develop benchmark that has been established by earlier studies. These include (Deller et al.1999; Carvan and Marston; 1999; Hedlin;1999, Asbaugh et al., 1999; Ettredge et al., 2002, Hamid, 2005).

Descriptive Research

The financial reporting via internet is considered part of the IR subject and its specifically looks on the use internet for the financial reporting purposes. Petravick and Gilliet (1996) surveyed of the Fortune 150 companies and established that 69% had corporate website and 81% of these companies have financial information in the website. In a later study, Petravick and Gilliet (1998) investigated on the timeliness of 125 Fortune 500 companies for posted their earning release in the website. Their result shows internet is considered one as of the important communication medium for dissemination of the financial information. Other US studies was conducted by Gray and Debreceny (1998) on the use of internet for financial reporting by the US Fortune Industrial 50 companies. They found that 68% (34) of fortune industrial firms had annual reports on the web. Ettredge et al. (2002) used a sample of 220 AIMR ratings companies for the best practice on corporate disclosure and analysed following firms. They found that 193 companies have a website and the most common item disclosed in the firm website is a financial news release (81%). They noted that wide variety of investor relation information presented in the websites since the site content was under companies discretionary.

Lymer (1997) surveyed top 50 UK listed companies from various industries. The result showed that 92 percent of the companies had website, however, only 24 percent of the Websites had published full financial reports. Furthermore a company in financial sector provides less investor information compare with companies in Chemical and Pharmaceutical sector. Other European studies include Laymer and Tallberg (1997) for Finnish companies, Gowthroupe and Amat (1999) Spanish companies, Hedlin (1999) German companies, Bernnam and Kelly (2000) Irish companies.

There has also been research on Asian companies. Marston (2003) surveyed the top 99 Japanese companies. She reported that majority of the company had a website in English and 68 of these companies had reported some sort of financial

information with 57 providing detailed accounting information. With reference to the Malaysian study, Noor and Mahammad (2000) investigated internet financial reporting by Malaysian companies. The sample consists of company that creates the link to the Malaysian Stock Exchange website. The result showed that out of 218 companies that established the link and only 11.5 per cent disclosed their full financial report.

Other professional bodies includes the International Accounting Standard Committee (Lymer et al., 1999) and Financial Accounting Standard Board (FASB, 2000), has continued this trend by covering other aspect of research in internet financial reporting that look into the format used for posting annual report over the internet (Pdf or HTML), the availability of real time stock quotes and the press release. On commenting the research conducted by those two professional accounting bodies, Bagshaw (2000) suggested that the global accessibility of corporate financial reports and the absence of a regulator required the national and international accounting professional bodies; to provides guidelines or best practice for corporate financial information via internet that was prepared in the highest quality.

In mid-1999, Laymer et al. (1999) has conducted beyond single country studies where they surveyed the 30 largest companies in 22 countries. They finds that the percentage of companies with a financial information located in the website is above 90% for the USA, Canada, Germany and Sweden companies, and to below 50% in Chile, Hong Kong and Malaysian companies.

Consistent with the topic of the study and the increasing use of the Internet for worldwide communication, the utilization of this communication medium has extended beyond financial reporting where it becomes as an instrument for investor-related communication (Gruner, 2002). According to Deller et al. (1999), the Internet will reduce the information advantage previously enjoyed by institutional investors and information intermediaries.

Deller et al. (1999) conducted a comparative study on the communication of IR information via internet by the 100 index-linked companies in US, UK, and Germany. The results showed that 91% of US firms had utilized the Internet as a communication medium for IR, as compared to 72% by UK companies, and 71% by German companies. The researchers also noted that the websites of US firms were offered more features than the websites of the other two countries. These features included email addresses for IR, mailing lists, and frequently asked questions (FAQs) related to IR.

Single country study has been conducted by Hedlin (1999), Brennam and Kelly (2000), Ettredge et al. (2002) and Hamid (2005). Hedlin (1999) conducted a study of Swedish firms. These sample were divided into three categories: (i) the most active stock; (ii) small and medium companies; and (iii)

new high-technology companies. However, he did not quantify the amount of IR information disclosed and he found that the IR information was variously reported—for example, 83% of the firms had a financial report on the Web and 12% had a hyperlink for the interpretation of financial reports. Brennan and Kelly (2000) conducted a similar study to 99 Irish listed companies. This study revealed that only 67% of the sample had a website and from this only 84% the websites presented at least one IR information.

Explanatory Research

Then again, a few studies have attempted to link the relationship between web reporting with company specific variables (e.g. Ashbaugh et al. 1999 and Marston, 2003). Ashbaugh et al. (1999) carried out a study on internet financial reporting by 290 US non financial companies using logistic regression found. They found that only firm size was a significant variable. While other variables i.e. profitability, individual ownership and AIMR rating practice was insignificant. Recent study by Marston (2003) was to analyse the internet disclosure by the top Japanese firms. Univariate result showed that firm the size was major explanatory variable for existence of website but not for the financial information. Other company variables include profitability, listing status and industry grouping show insignificant relationship.

Only one prior publish study in Malaysia by Salleh et al (1999), where they investigated the extend of web reporting to company specific variables. They employed four firm specific variables (size, profit, industry group and auditor) and test using univariate analysis. Univariate result showed firm size and profitability were major explanatory variables for decision to disclose financial information in website and others two variables showed insignificant relationship.

Other published empirical work on association between IR disclosure in the websites and firm characteristics was done by Ettredge et al. (2002). They (2002) extended earlier work by Ashbaugh et al. (1999) on the dissemination of corporate information for investors on American corporate websites to the factors thought to influence the disclosure practice. The hypothesis was drawn from Lang and Lundbloom's (1993) theory of voluntary financial disclosure, plus additional variables for disclosure quality. They analyzed 193 firms' websites—which provided two types of information: (i) mandatory information required by US securities authorities; and (ii) voluntary information for investors. They found that: (i) disclosure of mandatory information in the firm website was significantly associated only with size and a proxy variable for information asymmetry; and (ii) voluntary information was associated with variables proxy for size, information asymmetry, demand for

external capital and firms' traditional disclosure reputation.

The overall conclusion that can be inferred from the prior studies in internet financial reporting was that majority of the studies investigated the frequency and type of financial information located in the companies Websites. With reference to the nature of information, the data posted in the Websites, it must not be limited to the financial information only. As suggested by Thompson (2002) and Harper (2002) the current information disclosure demanded by user must include the non financial information like information on intangible assets.

Hypothesis development

IR disclosure may relate to Agency Theory. Agency Theory introduced by Coase (1937) and later expanded by Jensen and Meckling (1976) postulated that the role of accounting information was to supervise manager's behavior with the aim to minimize the agency cost. Agency theory predicts that a greater extend of disclosure is expected by the adoption of more governance mechanisms will reduce information asymmetry (Watts and Zimmerman, 1978) between principals and agents. Further, according to this postulate, the level of information asymmetry is an important driver for investor uncertainty. This is because inadequate disclosure may affect users' economic decision and efficiency of capital market. Watts and Zimmerman (1978) argued that companies would increase its voluntary disclosure in order to avoid pressure from the government and stakeholders that would lead to increase in future agency cost arising from the regulations. Lev (1992) pointed out that without an active corporate disclosure the truth never prevails and he noted that Economic Theory has recognized that without an active disclosure the truth never come out where a permanent information gap will generally exists between insiders and outsiders.

Prior studies found that the quality in corporate disclosure is associated with the certain firm characteristics. To our best knowledge and discussion in literature review section, there is limited literature on the empirical research in IR, therefore we have to refer to prior literature related to internet financial reporting (Asbaugh et al. 1999, Salleh et al., 1999, Ettredge et al, 2002, Marston, 2003) and voluntary disclosure (Singhi and Desai, 1971 Firth, 1979; Ball and Foster, 1982). As discuss above, the decision to disclose voluntary corporate information was relates to Agency Theory postulates. The existence of IR information in the companie's website also is on voluntary basis and the site content was under companie's discretionary. Accordingly, the hypothesis below is about the effect of four firm specific characteristics towards the decision to disclose IR information draw from agency theory postulate.

Firm Size

Larger firms will disclose more information than smaller firms due to the need to raise capital at a lower cost. Additionally, larger companies also have higher information asymmetry between agent and principle and, therefore, higher agency cost may arise from the information asymmetry. To reduce these agency cost, larger firm disclose more information than the smaller companies (Firth, 1979). Ball and Foster (1982) and Firth (1979) proposed that larger firm have adequate resources in adopting certain accounting policy. As such, larger firm having greater incentive for the Web based information dissemination by the reason small cost involved compare with the benefits they that will get. The cost here may include set-up and maintenance cost for the website.

Prior empirical evidence in Salleh et al. (1999) showed that there is positive relationship between firm size and internet financial disclosure, where larger Malaysian firm are likely to have financial information in the website compare with small firm by the reason for the cost involve in setting and maintaining the website. Others study by Ashbaugh et al. (1999), for US companies; found that firm size is the sole significant variables in web based accounting voluntary disclosure. Furthermore, firm responding to their survey indicated that communicating with potential and existing shareholders was an important reason for establishing the website. Other international evidence includes Ettredge et al (2002) and Marston (2003) also found similar findings. We expect the incentive to be the same for IR website case where benefits of IR website are likely to be increased with the firm size. Our first hypothesis is,

H1: There is positive relationship between the firm size and the amount of IR information at the firm website.

Profitability

Singhi and Desai (1971) suggest that if the firm profit margin is higher than industry average, management is likely to disclose more information in order to assure the stockholder on their strong financial position. Carven and Marston, (1999) noted that poorer performing firms may avoid using internet as a alternative communication medium for the dissemination of firm accounting information where they will choose to disclose those information to more determined users. Previous study in financial reporting has examined association between profitability and internet reporting.

Salleh et al. (1999) in their study tested the hypothesis that high level of profitability firms with website are more likely to disclose financial information on such sites than lower level of profitability firm with websites. They found a significant (at 5% level) positive relationship

between financial performance by Malaysian companies, as measured by profit after tax and extraordinary item. Another study by Ettredge et al (2002), found that no relationship between dissemination of information for investors at US corporation websites. Recent study by Marston (2003) also found no significant relationship measured by the pre-tax profit and pre-tax profit divided by capital employed, for top Japanese Corporation. Ng and Koh (1994) argued that more profitability firms will be subjected to greater public scrutiny, and will therefore make voluntary disclosure. Further, profitable companies would have more financial resources to comply with additional disclosure (Ashbaugh et al., 1999) and Marston, 2003). Accordingly, these companies might have incentive to show the investor that they are more profitable than their counterparts in the same industry. Based on the above discussion, it would appear that the relationship between disclosure and profitability may be different between developing and developed countries. As such our second hypothesis is;

H2: There is positive relationship between the firm profitability and the extend of IR information on the firm website.

This study uses market disclosure variables i.e. earnings per share (EPS) to test the significant of the relationship between profitability and the extent of investor relation information on the internet. Even though the difference exists for the profitability variables used, yet there is no theoretical reason for particular measurement of profitability.

Foreign ownership

Foreign investors may influence the level of voluntary disclosure by the firm (Chow and Boren, 1987). Haniffa and Cooke (2002) suggested that high disclosure may be expected for the firm that have high portion of shares by foreign investors because of substantial funding in Malaysian capital markets come from foreign investor. As discussed above internet communication is more economics and dissemination of information to investors and potential investor to any place around the world are much faster. Therefore, IR website will help foreign investor to monitor their economic interest in the firm. This is very much important because as the firm grows they may require foreign investors to invest in the company or for future demand of external capital (Ettredge et al. 2002). Moreover it can increase firm reputation from the eye of investors. Hence, a widened dissemination of investor related information via internet can create an impression of greater transparency that may be particularly important for foreign investors. The authors use agency theory to argue that foreign ownership is a mechanism which may help to reduce the interest conflict between principles and agents where foreign

investors are very cautious in protecting their economic interest in the foreign firm. Therefore;

H3: There is positive relationship between a high portion of shares held by foreign investors and the extend of IR information on the firm website.

Industry type

The implications of theory and prior empirical result from the relation between industry and internet disclosure are mixed. This may due to the fact that different industries have different propriety cost of disclosure and some may be more technological advanced than others. Salleh et al. (1999) found in his study on Malaysian companies are not significant influence between industry membership and decision to disclose financial information on the website. In related study, Carvan and Marston (1999) found no association between industry type and internet disclosure by UK companies. Marston (2003) extends her earlier studies where used more detailed industry variable in his study of Japanese firm were used. These firms were segregated as being financial services, general services, utilities and manufacturing. The result found there was significant relationship (at 1% level) for industry types in Japan. Yet, the evidence to date is inconclusive. It therefore seems appropriate to test whether IR disclosure varies between industries, so we expect,

H4: There is significant relationship between industry type and the extend of IR information on the firm website.

Methodology The Sample

The sample for this study consisted of 100 Malaysian index-linked counters (CIs) listed on the Malaysia Stock Exchange (MSE). The CIs are 100 stocks listed on the main board of the exchange. To be considered as CIs, a company must be evaluated by the index subcommittee of the stock exchange. Among other factors, selection criteria include market capitalization and trading volume. These companies were chosen for the present study because it was expected that they would actively conduct IR activities and be closely scrutinized by investors. Such a selection was also consistent with Deller et al. (1999), where their sample consisted of 100 stock market index-linked companies in the USA, UK, and Germany.

The first step in conducting this study was to identify the companies' websites. The MSE website (www.klse.com.my) was used to locate the homepage of the respective firms. If there was no such link available, other popular search tools were used (including Yahoo, Alta Vista, Dogpile, Google, and Cari).

This study employed content analysis to measure the incidence of IR disclosure in the website. Several authors (Krippendorff, 1980; Weber, 1988; Neuendorf, 2002) have proposed a formal definition of content analysis. Krippendorff (1980) defined it as “a research technique for making valid inference from data according to their content” whereas Waber’s (1988) definition stated that “content analysis is a method of codifying text (or content) of piece writing into various groups (or categories) depending on selection criteria”.

Krippendorff (1980) and Neuendorf (2002) have provided a staged process for any content analysis. The first stage is deciding the document to analyze. The present research monitored websites for three months. Deller et al. (1999) used a one-month study period (because their research was a comparison of IR information in three countries) and Brennan and Kelly (2000) took a year, as discussed in literature review above. However, there is no theoretical basis for deciding the period to monitor the IR website.

The second stage in content analysis is to determine the means of measuring IR. A review of the literature suggests that the earlier measurement of IR information was based on the incidence of IR information (Deller et al. 1999; Hedlin, 1999; Bernnam and Kelly 2000). To measure the disclosure level quantitatively in the present study, a disclosure index was developed. A dichotomous procedure developed by Cerf (1961) was used to measure the disclosure score. A score of ‘one’ was given if a given item was disclosed and a score of ‘zero’ if it was not disclosed. In this study, all IR items noted on the websites were considered equally important.

The third stage in content analysis is to develop a checklist instrument. This process involves the selection of categories or dimension in disclosure theme to be used to capture the level of information disclosed for investors at the firm’s website. The characteristics, together with their scoring rules, are defined in table 1 identified from the extensive review on prior literature (Deller et al. 1999; Hedlin, 1999; Bernnam and Kelly 2000, Hamid, 2005) and interviewed with company investor relation manager which included major characteristics as discussed in literature review section.

Table I
Definitions of the Variable

The inter-coder reliability is the main concern in content analysis study. To minimize inter-coder reliability some precautionary measures are taken to ensure the reliability of the measurement. First both authors cum coder have discussed the existing literature relating to IR with the aim to enhance their understanding. Secondly both authors have reviewed a small sample of IR printed Web document independently and proceeded with coding process using checklist instrument. The coded data are then being compared and if discrepancies exist the document will be reanalyzed and differences will be

resolved. Accordingly both authors analyzed the remaining IR Web document.

The model

We employ ordinary least squares (OLS) regression to examine the relationship between investor relation disclosure and the four exploratory variables. The following model is estimated;

$$\text{ISCORE} = \alpha + \beta_1 \text{Size} + \beta_2 \text{Profit} + \beta_3 \text{foreign} + \beta_4 \text{Profile} + \epsilon$$

Where;

ISCORE = The sum of the score of the 14 IR items

Size = natural log market capitalization;

Profit = Earnings per share

Foreign = Percentage of foreign ownership held in the company

Profile = Profile was indicating using dummy variables to classified companies into one of the followings industries: consumer products, industrial products, construction, trading, infrastructure project companies, finance, hotel, properties, plantations, mining and technology.

ϵ = disturbance term

α, β_i = Constant or parameters to be estimated, $i = 1, \dots, 4$.

Analysis and discussion of result

Descriptive statistics and correlations analysis

Table 2 panel A presents the distribution of the dependent variable (i.e. extend of IR information in the websites measured by ISCORE). The result shows that there is a wide range in the level of IR disclosure in the sample. The highest disclosure score obtained is 13 and the lowest is 0. The average relative IR disclosure index of the sample companies was 4.47. This result is also consistent with the literature in Malaysia (Hamid, 2005) that the Malaysian companies have a greater flexibility in their disclosure choice. In addition, the relative low IR disclosure in the websites implies that the companies in Malaysia may use traditional IR communication medium to communicate with investors. Table 2, panel A also shows that the distribution of profitability (EPS) is skewed; the average profit is 24.23 but the min is -109.00. Furthermore, foreign owned companies (FOREIGN) comprise 23 % of the sample.

Table 2 panels B, represents the descriptive statistics for nominal independent variables consists of index-linked companies from various industries. The proportions of companies in the sample are not equally distributed. Table 2 panels B shows the large number of the companies in the sample comes from trading industry (31%) and the lowest is from hotel industry (1%). As discussed before the selection of the companies in the index was based on the MSE index committee.

Table II
Descriptive statistics for study variables (n = 100)
Panel A (Continuous Variables)
Panel B (Nominal Independent Variables)

Table III show the frequency of IR items in the companies Website. The data was gathered in a year 2003. To ensure the reliability of the result, the sample firm websites were visited by different researcher. In doing so the two data forms from each firm were compared and differences were reconciled. Not reported in the result, out of 100 companies (i.e. index link counter) only 72 companies having the website and also reported minimum IR information. Additionally not reported also in the table were 30 companies that have specific IR sections located in the websites. These companies may concern on the importance of IR communication via websites for their investors and also to help investors to find information in an efficient way.

The top five item posted in firm the Website is company background (71%), financial reports (51%), News (47%), Financial Highlight (42%), Ratio (40%) and the least item was frequently asked questions (7%). As such, the highest-ranking item is company background featuring profile of company that included date incorporated, location of business, company activities, mission and vision of the companies. The result may suggests that by making background disclosure it will indicate the strength of company, its values and beliefs reputation and the strategic direction in which it intends to move. As proposed by Gray and Balmer (1998), the corporate image and reputation can be developing through corporate communications and this qualitative information is important to build investors' confidence. With reference to the availability of financial data time series, 40 % of the companies offered financial data for more than two years.

In conclusion for the descriptive analysis, although internet offers a variety of possibilities to communicate with investor for example via e-mail and mailing list, there were only partially used by the Malaysian companies.

Table III
Frequency of IR item at Websites

The correlations analysis in Table IV shows correlations among the variables and provides a basis for interpreting result in the multivariate analysis which relates to the factors thought to influence the disclosure and availability IR information in the firm website. The correlation analysis between dependent variables IR scores (ISCORE) and independent variables show that the firm size is highly correlated at 1% level and the profitability variable (EPS) is positive significant at 5% level. For the industry variables, only construction industry was

significantly correlated with extend of IR information at 5% level.

The correlations analysis supports the H1 and H2 where size and profitability variables are positively correlated to disclosure level. The correlation between foreign ownership (FOREIGN) and ISCORE was positive but not significant, hence it was not support the H3. For the H4 the result were divided into three categories: (i) the correlations with ISCORE is positive for finance, technology and Plantation but not significant; (ii) the industrial, properties, trading and consumer industry the correlation is negative with the ISCORE; and (iii) four industry variables comprise of technology, infrastructure, plantations and hotel are not correlated at all ($p > 0.05$) with others variables.

Table IV
Correlation Analysis

Multiple regression models

Table V reports the multiple regression result. The IR score (ISCORE) is regressed on with the twelve firm-specific attributes as independent variables. However, a multicollinearity problem existed, i.e. a linear function of one independent variables in the models with others independent variables. In our model, the TRADING variables shows sign of multicollinearity problems where the variance inflation factors (VIF) value is more than 5 (Judge et al. 1988). To overcome this problem one of the suggestion made by Beck (1993, p.198) is to exclude the variables in the model and we choose to exclude these TRADING variables from our model. As a result of these the VIF measurement scores shows below than two.

Table V
Regression results

Table V presents the adjusted R (coefficient of determination), F-value, beta coefficient and t-statistics for the model. The R^2 of 0.221 ($F = 1.569$, $p = 0.028$), which shows low percentage (22.1%) of the variation in Y can be explained by variations in the whole set of independent variables (adjusted $R = 0.114$). The explanatory power of the model is comparable with prior research that used data for single period (Etteredge et al. (2002) adjusted R^2 0.175). This result may suggest that the IR study was in infancy stage and there are other intervening factors that have not been capture in this study.

Only two variables entered the equation with the regression coefficient that is significant at the 0.05 level in the regression model. These variables include firm size and one industry dummy variable. Furthermore, albeit week is the significant level for the profitability, finance and industrial product variables at 0.10 level. On the other hand, the foreign

ownership and other six industry variables are insignificant.

The most significant industry variable is from constructions firm with a p-value of 0.004. These findings partly provide support for H3, that IR disclosure is varies between industries. The next most significant variables are size of the firm ($p < 0.05$). These results support numerous previous empirical studies which show that large firm discloses more information.

Discussion of findings

Hypothesis 1 states that big firm would more likely have a greater amount of IR information at the website. This finding is consistent with the prior study by Salleh et al. (1999), Ashbaugh et al. (1999) and Ettredge et al. (2002). As discussed before numerous previous empirical studies show those large firms tend to disclosed more information. Ball and Foster (1982) questioned use of size in empirical study as it can be used as a proxy for many influences. Their argument was based on the size of company that can be a proxy for a number of firm attributes likes political cost and agency costs. Further, Watts and Zimmerman (1978) call it crude variable where theory is insufficiently developed. Thus, a possible explanation of this result is that the empirical research in IR is still in infancy stage and the highly correlated proxy variables may help to provide information in future research and theoretical development in this area. Another possible explanation is IR study may relate to research in voluntary disclosure where most of the study found significant relationship between companies size and amount of disclosure.

Hypothesis 2 states on the influence of the profit to amount of IR disclosure. The result found a positive relationship but insignificant and not support at 5% significant level. Evidence from previous study is varied and has focused on different countries; however these may not explain the differences. Recent study by Marston (2003) and Ettredge (2002) also found insignificant relationship for internet reporting by the top Japanese and US firm respectively. However study by Salleh et al. (1999) found significant relationship between the profitability towards the decision to disclosed financial information via internet by Malaysian firm. The possible argument may exist on the proxy variables used to explain the relationship with financial performance. As such this study also tests others proxy variables for financial performance as what employed by Marston (2003), Ettredge et al. (2002) and Salleh et al. (1999) and the result also were not significant. An important assumption of this finding is not as per agency theory postulate on the management compensation plans. The result from this study may indicate that the companies' management may employ or comfort with the current traditional IR communication.

Draw from Agency postulate on the demand from external capital, hypothesis 3 predicts that firm with the foreign shareholding is likely to influence the extend of IR information in firm website and this notion was not supported. A possible reason was the foreign shareholders may depend on fund managers for their investment decision. Therefore, the companies possibly belief that foreign shareholding has no influence or push companies to establish the website. As we know, these fund managers have different interest and different investing style. One fund manager may focus on the growth industries the others may looked on the company fundamentals. Therefore, the company may predict the traditional IR communication is importance in communicating company news to the fund managers. Another possible reason is the website cost. The company believes that the cost for developing and maintain the website is high where required to be updated parallel with the company news or announcement. Based on those two arguments; (i) on the utilization of website by investor and; (ii) the website cost, the company may unable to see the benefits over the cost in developing and maintains the IR information in website. Further, their assumption is that compliance with the regulation is sufficient for communicating and providing information to the investors. However, we suggest that the firm manager should know that poor reporting and communicating on the firm information will result investors to look elsewhere for more useful information and as a result of this action, the investors will discounting the firm share price (Miller and Bahnson, 2002).

Hypothesis 4 which states that extend of IR were varies between industries. The result found that industry product variable was significant when univariate and multivariate analysis was used. Evidence from previous study is varied, but this has focused on different industries list, which may explain the differences. Agency theory postulate might explain differences in IR disclosure between industries. It might be that the managers will feel insecurity when operates in uncertain economic environment therefore they disclosed detail and newest information in order to support the continuance of their position. For example manager in construction industry want to inform the investors on the latest company's information that relates to company's performance. The may due to the managers perception that current unpredictable economic environment may effect construction industry. The consequence was companies may be undervalued by stock market and their firm possibly will not in the fund managers' favorite list on companies to invest. Hence the utilization of internet technology allows company's to provide an up-to-date information and communication to investing community that will minimize uncertainty about company's performance. Another reason may be on the dominant firm in the particular industry that have

high level of disclosure will influence others companies in the same industry to follow due to need for external capital, investors perceptions and future regulations from the regulator.

CONCLUSION

On this paper, we examine the dissemination of IR information at corporate Websites. We find a great deal of variations in both the frequency with which different items are presented at sites and the number of items that are presented at any one site. The result showed that IR communication through internet was new among index link Malaysian companies at the time of survey. The top five item disclose by companies indicate the important information disclose related to corporate reputation and financial result. We used univariate and multivariate analysis to test the link the variation IR information disseminated through corporate website to factors that also influence the initial disclosure of investor information. The result showed that company size and industry type, but not profitability and foreign ownership are associated with IR information item discloses. Our result confirmed that companies in Malaysia may rely on traditional IR communication channel for communication. Perhaps the current practice in Malaysia on Internet communication represents only at the first dimension of internet reporting as outlined by Lymer et al. (1999).

Lymer et al. (1999) has divided internet reporting into three stages. At the first stage, firm used internet solely as another distribution channel for their existing printed financial reports. At second stage, firm moved to disclose information in a form which web browser and search engine can readily interact. Finally, the third stage was related to XBRL, which is an XML-based specification for efficient automated retrieval of financial information (see www.xbrl.org) that provides interactive tools with which to analyze the information. Skinner (2003) suggested the combining of advanced communication technology, regulatory and market pressure will force the companies to disclose more information to the capital market participants, this because corporate disclosure practiced in this millennium had become more urgent, complex and open.

Like all studies, this study has its limitation. Firstly, the main focus of this study is on the nature and type of IR information in the firm website. However, as what has been addressed by Bernman and Kelly (2000), due to the dynamic nature of internet the result of the study only represents snapshot of Malaysian companies using the internet for IR activities at a specific period, whereby the Websites are constantly being created and their information being updated regularly by the organizations. Second the study found the expected relationship between IR disclosures and four firm characteristics variables, more evidence are needed on the existence of IR Web reporting by others listed

companies. As such further study can be done by increasing the sample and test others proxy variables before any generalization can be made. Finally, IR communication using internet is considered a new and complex activity that cannot be fully explained by a single theoretical perspective or from a single level of resolutions, when no dominant theory has yet been established. These can be looking on the lower level of coefficient of determinations in the multivariate analysis.

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List of tables**Table I. Definitions of the Variable**

IR Sections	One if the site have IR specific sections and zero otherwise.
Annual reports	One if the site provide a complete annual report, and equals zero if no annual reports information is available.
Quarterly report	One if the site provides quarterly reports including financial statement, and zero otherwise.
Financial highlight	One if the site provides an overview of the firm performance, and zero otherwise.
Firm background	One if the site provide a complete firm background (defined as history of the firm, directors' biography, firm mission and vision) or excerpts there of. Equals zero if no firm background information available.
Current share price	One if site provides same-day stock price, and zero otherwise.
Historical share price	One if the site provides historical share price, and zero otherwise.
Shareholder data	One if the site provides detail of major shareholding and zero otherwise.
Ratio analysis	One if the sites provides key financial ratios (defines as P/E ratio, EPS, ROE, ROA, DPS) or excerpts there of and zero otherwise.
News	One if the site provides latest company announcement of interest to investors (such as) and zero otherwise.
Frequently ask questions	One if the featured a page of frequently ask questions related to investors and zero otherwise.
Link	One if the site provides a link to third party sites that provides IR information, and zero otherwise.
Contact	One if the site provides contact details for IR department and zero otherwise.
Others	One if the site provides other IR information other than above for the interest of investor (defined as IR road show calendar, circular to share holder, meeting with shareholder and analyst, IR policy and e-mail alerts on IR information) or excerpts thereof or zero otherwise.
ISCORE	The sum of the scores of the above 14 characteristics

Table II. Descriptive statistics for study variables (n = 100) Panel A (Continuous Variables)

		Mean	Min	Max	Std. Dev.
Dependent Variables					
ISCORE	Extent of IR disclosure	4.47	0	13	3.84
Independent Variables					
MKT	Firm size (total market capitalization in MR' million)	3438.48	109.8	34217.17	5925.43
EPS	Profitability (earnings per share)	24.23	-109	232	39.92
FOREIGN	Foreign ownership (as a percentage)	23.02	0.16	79.85	21.7

Panel B (Nominal Independent Variables)

Industry	%	Industry	%
Finance	13	Technology	5
Industrial	14	Infrastructure	3
Properties	11	Constructions	3
Trading	31	Plantations	5
Consumer	14	Hotel	1

Table III. Frequency of IR item at Websites

Item	% of firms disclosing
Firm background	71
Annual report	51
News	47
Financial highlight	42
Financial ratio	40
Quarterly report	35
Others IR information	32
Largest shareholder data	23
Contact	19
Current and historical share price	18
Link to third party website	14
Frequently ask question	7

Table IV. Correlation Analysis

	ISCORE	SIZE	PROFIT	FOREIGN	FINANCE	INDUST	PROP	TRADING	CONSU	TECH	INFRA	CONST	PLANT	HOTEL
ISCORE	1.000													
SIZE	.306**	1.000												
PROFIT	0.225*	0.372**	1.000											
FOREIGN	0.081	0.003	0.207*	1.000										
FINANCE	0.124	0.181*	-0.053	-0.153	1.000									
INDUST	-0.102	-0.217*	-0.075	0.127	-0.156	1.000								
PROP	-0.01	-0.248*	-0.149	-0.040	-0.136	-0.142	1.000							
TRADING	-0.122	0.218*	-0.030	-0.143	-0.2599**	-0.270**	-0.236**	1.000						
CONSU	-0.12	0.017	0.375*	-0.199*	-0.156	-0.163	-0.142	-0.270	1.000					
TECH	0.032	-0.115	-0.074	-0.017	-0.089	-0.093	-0.081	-0.154	-0.093	1.000				
INFRA	0.086	0.026	0.001	0.021	-0.068	-0.071	-0.062	-0.118	-0.071	-0.040	1.000			
CONST	0.255*	0.073	0.009	0.101	-0.068	-0.071	-0.062	-0.118	-0.071	-0.040	-0.031	1.000		
PLANT	0.02	0.012	-0.024	-0.072	-0.089	-0.093	-0.081	-0.154	-0.093	-0.053	-0.040	-0.040	1.000	
HOTEL	-0.118	-0.093	-0.058	0.152	-0.039	-0.041	-0.035	-0.067	-0.041	-0.023	-0.018	-0.018	-0.023	1.000

**significant at 1%

level

*significant at 5%

level

Table V. Regression result $R^2 = 0.221$ Adjusted $R^2 = 0.114$ F value = 2.057 (significant 0.028)

Independent Variables	Expected Sign	Coefficient	Std Error	Beta t-value	Sig.
Intercept		2.662	0.692	-0.989	0.1625
SIZE	+	1.764	0.804	2.195	0.0155**
PROFIT	+	0.015	0.011	1.370	0.087***
FOREIGN	+	0.011	0.018	0.593	0.278
FINANCE	+	1.880	1.199	1.568	0.0605***
INDUST	+	0.507	1.237	0.410	0.342
PROP	+	1.771	1.336	1.326	0.094***
CONSU	+	0.114	1.276	0.090	0.465
TECH	+	2.147	1.775	1.209	0.115
INFRA	+	2.620	2.191	1.196	0.118
CONST	+	5.902	2.206	2.675	0.0045*
PLANT	+	1.345	1.746	0.771	0.222
HOTEL	+	-2.673	3.775	-0.708	0.241

*significant at 1% level

**significant at 5% level

***significant at 10% level